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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/580,151 | 05/02/2007 | Svend Henry Frandsen | CM06621EC | 8080 |
| 24273 7590 06/26/2009 | | | | |
| MOTOROLA, INC 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196 | | | | |
| EXAMINER | | | | |
| SARWAR, BABAR | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2617 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 06/26/2009 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

Office Action Summary

Application No.

10/580,151

Applicant(s)

FRANDSEN ET AL.

Examiner

BABAR SARWAR

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-8, 12-16, 18-22 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 12-16, 18-22, 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to **claims 1-4, 6-8, 12-16, 18-22, 25** have been considered but are moot in view of the new ground(s) of rejection.
2. **Claims 9-11, 17, 23-24** were cancelled as per preliminary amendments.
3. **Claim 5** is cancelled.
4. **Claims 1-4, 7-8, 12-13, 20** have been amended.
5. The Examiner acknowledges the mistake committed in indicating the Filing Date in the previous office action mailed on 11/25/2008. The correct Filing Date is **May 18, 2006**.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-8, 12, 16, 18, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admission of Prior Art (AAPA) in view of Ohtani et al. (US 6,977,903 B1), hereinafter referenced as AAPA and Ohtani.

Consider **claim 1**, AAPA discloses a method of establishing a communication between at least a first communication unit and a second communication unit in a digital communication system (**Para 0004, Fig. 1 where AAPA discloses mobile radios**), comprising: wherein a delay to transmission of audio data is applied to allow for delay in

a channel provision (**Para 0004, Fig. 1, where AAPA discloses that truncation will occur for the voice frames are deleted in the rendezvous Router as the multicast tree has not been set-up in due time, therefore allowing the delay in channel provision**); and wherein the communication is established between a first base station and a second base station (**Fig. 1 elements 102, 108, where AAPA discloses the first base station and the second base station**) which communicate via a common node operably connected to a call processing server which grants channels (**Fig. 1 elements 104, 106, the rendezvous Router and the call processing server**), such that the first base station operates on a long delay link to the common node and the second base station operates on a short delay link to the common node (**Fig. 1, where AAPA discloses the long delay and the short delay**).

AAPA does not explicitly disclose that measuring by a network infrastructure device a propagation time between the first and second base stations and applying a delay obtained using the propagation time measurement to transmission of audio data blocks sent by the second base station on behalf of the second communication unit, the delay being sufficient that audio data is sent to the first base station when a channel grant notification from the call processing server has been received by the first base station and the first base station has joined a communication path to receive the audio data. Ohtani discloses measuring by a network infrastructure device a propagation time between the first and second base stations (**Abstract, Col. 14:40-47, Fig. 2, where Ohtani discloses an MSC monitoring and detecting delay in frames arriving from the base stations, therefore measuring the propagation time between the base**

stations) and applying a delay obtained using the propagation time measurement to transmission of audio data blocks sent by the second base station on behalf of the second communication unit (**Abstract, Claim 7, where Ohtani discloses a switching center with a buffer for receiving and storing frames transmitted from the base stations and a frame extraction unit to determine timing of extraction of frame from the buffer based on delay of communication between the base stations and the switching center, therefore applying the delay to transmission of audio data blocks sent by the base stations**), the delay being sufficient that audio data is sent to the first base station when a channel grant notification from the call processing server has been received by the first base station and the first base station has joined a communication path to receive the audio data (**Col. 23:20-55, where Ohtani discloses that synchronization is ensured in communication between MS's, BS's, and MSC's, a communication controller informing of rightly measured transmission delay to receiving system**).

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify AAPA with the teachings of Ohtani so as to provide communication system with varying transmissions according to service types as discussed in **Col. 2:32-42**.

Consider **claim 2**, the combination teaches everything claimed as implemented above (see claim 1). In addition, AAPA discloses that a) initiating a call set-up phase between the first base station and the second base station and the call processing server (**Fig. 1, where AAPA discloses call set-up phase**); b) sending by the call

processing server a channel grant instruction to the first base station and to the second base station (**Para 0004, Fig. 1, where AAPA discloses channel grant instruction**); c) joining by the first base station and the second base station a multicast group (**Para 0004, Fig. 1, where AAPA discloses multicast join, therefore multicast group**); d) creating a multicast tree from the common node (**Para 0004, Fig. 1, where AAPA discloses CPS sending channel grant instructions and the base station joining the multicast group and forming the multicast tree, therefore the multicast tree from the common node**); e) the first and second base stations joining the multicast tree; and f) transmitting the audio data blocks to the multicast tree when joined by the first and second base stations (**Para 0004, Fig. 1, where AAPA discloses the multicast group and the multicast tree, therefore transmitting the audio data blocks**).

Consider **claim 3**, the combination teaches everything claimed as implemented above (see claim 2). In addition, Ohtani discloses wherein the one way propagation times on the short delay link and on the long delay link are measured by the first base station and the second base station (**Col. 4:12-18, Fig. 3, where Ohtani discloses a radio synchronizer**).

Claim 4, as analyzed with respect to the limitations as discussed in claim 3.

Consider **claim 6**, the combination teaches everything claimed as implemented above (see claim 2). In addition, Ohtani discloses that wherein the one way propagation times on the short delay link and the long delay link are measured by a call processing server (**Abstract, Claim 7, where Ohtani discloses a switching center with a buffer**

for receiving and storing frames transmitted from the base stations and a frame extraction unit to determine timing of extraction of frame from the buffer based on delay of communication between the base stations and the switching center).

Consider **claim 7**, the combination teaches everything claimed as implemented above (see claim 2). In addition, Ohtani discloses that wherein a delay is made to sending of audio data by the second base station by delaying sending of a channel grant instruction to the second base station (**Col. 23:20-55, where Ohtani discloses that synchronization is ensured in communication between MS's, BS's, and MSC's, a communication controller informing of rightly measured transmission delay to receiving system**).

Consider **claim 8**, the combination teaches everything claimed as implemented above (see claim 2). In addition, Ohtani discloses wherein said step of applying a delay to transmission of the audio data blocks is carried out in one of the following ways: (i) by buffering the audio data blocks in the second base station; or (ii) by buffering the audio data blocks in a Rendezvous Point (RP) router of the communication path; or (iii) by buffering the audio data blocks in the call processing server (**Abstract, Claim 7, where Ohtani discloses a switching center with a buffer for receiving and storing frames transmitted from the base stations and a frame extraction unit to determine timing of extraction of frame from the buffer based on delay of communication between the base stations and the switching center**).

Consider **claim 12**, the combination teaches everything claimed as implemented above (see claim 1). In addition, Ohtani discloses wherein a pinging procedure is used

for the measuring, wherein the applied delay is re-measured and dynamically varied by remeasurement of the propagation times when one of the communication units switches from service by one base station to service by another base station (**Figs. 20-25, where Ohtani discloses handovers**).

7. **Claims 13-15, 22, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admission of Prior Art (AAPA) in view of Ohtani, and further in view of Rosen et al. (US 2002/0172169 A1), hereinafter referenced as Rosen.**

Consider **claim 13**, the combination teaches everything claimed as implemented above (see claim 1). However, the combination does not explicitly teach wherein the first communication unit served by the first base station and the second communication unit served by the second base station notify their users by a visual or audio signal that they are operating on a connection with a long delay. Rosen discloses wherein the first communication unit served by the first base station and the second communication unit served by the second base station (**Fig. 1 elements 102-106, 116, 118, 122, 110, where Rosen discloses mobile communication devices, base stations, MSC, and CM**) notify their users by a visual or audio signal that they are operating on a connection with a long delay (**Para 0029, 0033, where Rosen discloses that user being notified upon assignment of transmission privileges by audible, visual, and tactile alert through the communication devices, therefore notifying user by visual or audio signal that they are operating on a connection with a long delay**).

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify AAPA and Ohtani with the teachings of Rosen so as to notify the user upon channel establishment as discussed in **Para 0007**.

Claim 14, as analyzed with respect to the limitations as discussed in claim 13.

Claim 15, as analyzed with respect to the limitations as discussed in claim 13.

Consider **claim 16**, the combination teaches everything claimed as implemented above (see claim 1). In addition, AAPA discloses wherein the communication between the first communication unit and the second communication unit is at least one of a simplex communication and a duplex communication (**Para 0007**).

Consider **claim 18**, the combination teaches everything claimed as implemented above (see claim 1). In addition, AAPA discloses wherein the communication between the first communication unit and the second communication unit is secured by an end-to-end encryption (**Para 0004**).

Consider **claim 19**, the combination teaches everything claimed as implemented above (see claim 18). In addition, AAPA discloses wherein synchronization data blocks replace a corresponding amount of the audio data blocks at a beginning of data stream (**Para 0004**).

Consider **claim 20**, the combination teaches everything claimed as implemented above (see claim 1). In addition, AAPA discloses wherein the communication between the first communication unit and second communication unit is a call using a direct set-up method (**Fig. 1**).

8. **Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admission of Prior Art (AAPA) in view of Ohtani, and further in view of Lynk et al. (US 4821310), hereinafter referenced as Lynk.**

Consider **claim 21**, the combination teaches everything claimed as implemented above (see claim 1). However, the combination does not explicitly teach transmitting audio data blocks is delayed in a first speech item. Lynk discloses that transmitting audio data blocks is delayed in a first speech item **(Abstract, where Lynk discloses requesting permission to access a group of channels, immediately speaking without waiting for permission and assignment to particular channels, recording the information and reproducing it upon assignment of the channel i.e. delaying transmission of audio data blocks).**

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify AAPA and Ohtani with the teachings of Lynk so as to decrease an access delay and response time for channel seizure as discussed in **Col. 2 lines 50-57.**

Consider **claim 22**, the combination teaches everything claimed as implemented above (see claim 1). However, the combination does not explicitly teach wherein said first communication unit and said second communication unit operate in different communication systems. Rosen discloses that wherein said first communication unit and said second communication unit operate in different communication systems **(Para 0023, Fig. 1, where Rosen discloses CDMA, TDMA, GSM, Globalstar.TM or Iridium.TM systems).**

Consider **claim 25**, the combination teaches everything claimed as implemented above (see claim 1). However, the combination does not explicitly teach wherein the first communication unit is a TETRA radio or an ASTRO/APCO 25 radio or an IDEN radio, a GSM radio, a GSM-R radio or any radio in a digital radio system utilizing a low rate vocoder. Rosen discloses wherein the first communication unit is a TETRA radio or an ASTRO/APCO 25 radio or an IDEN radio, a GSM radio, a GSM-R radio or any radio in a digital radio system utilizing a low rate vocoder (**Para 0023, Fig. 1, where Rosen discloses CDMA, TDMA, GSM, Globalstar.TM or Iridium.TM systems**).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BABAR SARWAR whose telephone number is (571)270-5584. The examiner can normally be reached on MONDAY TO FRIDAY 09:00 A.M -05:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BS/

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